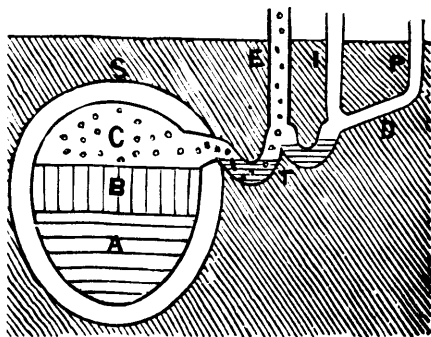


DRAIN TRAPS AND SEWER GASES.

Too great precautions cannot be taken in order to prevent the deadly influences of sewer gases in our dwellings. The only safe rule is, to have the house drains and soil pipes kept always free from sewer gas, by means of traps between the drain and the sewer and by free ventilation of the drains and soil pipes. The greatest difficulties we have to contend with is in the sewers themselves. In defective construction of these, in want of free ventilation of them, and in the altered conditions of their contents from storm water, winds, etc., the chief troubles are to be found.

A double trap between the sewer and house drain must afford better protection than a single trap. A plan recently proposed by Mr. H. Masters, in the *Sanitary Record* for April, illustrated in the following figure, appears to have many advantages, especially in providing for unusual pressure from storm water in the sewers.

In the section of sewer, *s*, the space *a* represents the average amount of sewage flowing in it. When a storm occurs, as a heavy shower of rain, the water poured in from the street gullies quickly increases the quantity of sewage and it rises into the space *b*, compressing the air or gases into that of *c*. Now, although there may be, at intervals, street openings for the escape of the compressed gases, a certain amount of these gases will be forced through the first trap at *t*, as shown in the figure. With an escape pipe, as at *e*, of the same area as the drain itself, and a second trap between it and the house drain, as at *f*, the greatest amount of safety is obtained. The soil pipe, *p*, as in all cases, should be carried up full bore above the roof of the house; and there should always be an inlet for fresh pure air, as at *i*, by which the drain, *d*, and the soil pipe will be kept free from foul air. The distant opening of the inlet may be, according to circumstances, either in the yard, when this is large, or the pipe may be carried up above the roof.



THERE MUST SOON be hundreds of medical health officers appointed in Canada. Physicians should keep "posted" by subscribing for this JOURNAL.